



California Regional Water Quality Control Board

Los Angeles Region



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Arnold Schwarzenegger
Governor

March 27, 2007

3/20/07 BdWrshp Item 8
Water Recycling
Deadline: 3/27/07 5 pm

Ms. Tam M. Doduc, Chair
State Water Resources Control Board
P.O. Box 100
Sacramento, Ca 95812-0100

Attention: Song Her, Clerk to the Board



WORKSHOP REGARDING DEVELOPMENT OF A STATEWIDE WATER RECYCLING POLICY - STATE WATER RESOURCES CONTROL BOARD BOARD MEETING SESSION - MARCH 20, 2007 - COMMENTS ON IDENTIFIED ISSUES

Dear Chair Doduc:

The Los Angeles Regional Water Quality Control Board appreciates the opportunity to comment on issues related to the State Board's development of a statewide Water Recycling Policy which aims to balance the competing issues of encouraging the use of recycled water use while ensuring the protection of California's water resources for now and into the future. We understand the challenges in developing such a policy. There are many overlapping issues to consider including DHS requirements, federal and state policies and regulations, regional water quality standards, new challenges related to emerging chemicals, and serious threats to water quality from salinity and nitrates.

As you are aware, this is a very important issue in our region -- where a substantial portion of our water supply comes from local, and often, high quality ground water supplies. We understand that one purpose of a statewide policy might be to provide direction to the Regional Water Boards on how to interpret certain state statutes, regulations, plans, and policies with respect to water recycling projects, thus ensuring consistent interpretation, where appropriate, of certain requirements among the Regional Water Boards while ensuring compliance with the application of site-specific or regional water quality standards and policies to particular projects in order to protect local resources. We believe this issue deserves very careful attention and involvement of the Regional Boards in order to adhere to regulatory and legal requirements of both the State and Regional Boards and maximize both the quantity and quality of California's waters.

A rather unique case study has arisen in our region during the Regional Board's recent consideration of two WRR/WDRs for the City of Los Angeles. This case highlighted several of the issues mentioned above -- in particular, salinity, groundwater monitoring, antidegradation, and emerging chemicals. The Regional Board adopted these orders in January; however, a couple of specific issues in the permits were delayed pending discussion (with staff, City of LA, and Heal the Bay, and

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others) over the next 18 months. We will be convening a group tomorrow to initiate these discussions which overlap with some of the questions you raised in your recent workshop. We hope to receive a lot of input and fully vet these issues in the coming year; therefore, we may have expanded viewpoints on many of these issues in the coming months. In the meantime, we offer these initial thoughts in response to the questions posed at your recent workshop:

Irrigation Projects and Salts

Issue 1: What should the State Water Board do to protect groundwater basins in the state from the accumulation of salt, including nitrate?

Response: The most logical way to protect the underlying groundwater basins from accumulation of salts would be to apply each region's groundwater Basin Plan objectives (or lower levels after applying antidegradation principles) at the end-of-pipe as effluent limits or similarly monitor fate and transport and effects on groundwater basins. Variables, such as rainfall, crop nutrient uptake, and identification of all contributing recharge sources, should be considered. Advanced treatment and integrated approaches for recharge should be considered where necessary to protect or recover groundwater supplies.

Issue 2: To protect groundwater basins from the accumulation of salt, should the concentration of salt in recycled water used for irrigation be limited? If so, what procedures should be used to establish the limitations?

Response: Yes. Please see our Response to Issue 1. In particular, high quality resources should be protected for future use.

Issue 3: To limit the discharge of nitrate to groundwater, should the State Water Board require recycled water users to prepare nutrient management plans?

Response: Yes. Where a recycled water irrigation project has the potential to contribute to a nutrient problem in groundwater or by incidental runoff to surface waters, a nutrient reduction plan should be required. It would be prudent to require both salt and nutrient management plans for such projects. The level of detail as well as special studies that may be required may be dependent on factors such as the level of treatment of the recycled water and the quality of receiving waters.

Issue 4: Should groundwater monitoring be required for recycled water irrigation projects?

Response: If groundwater Basin Plan objectives are met end-of-pipe, there may not be a need for groundwater monitoring (this depends on the quality of the ambient water compared to the water quality objectives). However, if this is not the case, or

higher limitations are imposed, depending upon the fate and transport of contaminants and depth to groundwater, groundwater monitoring may be required in order to evaluate, and protect against, degradation of groundwater that may result from such projects.

Groundwater Recharge Reuse Projects

Issue 5: What requirements should be placed on groundwater recharge reuse projects to protect the public from toxic constituents?

Response: Most of the Regions have at least narrative Basin Plan Objectives for toxic contaminants specified in their Basin Plans. Region 4's Basin Plan states that groundwater designated for municipal use shall not contain toxic constituents in excess of Title 22 Maximum Contaminant Levels (MCLs). Therefore, at a minimum, to protect underlying groundwater, limitations based upon MCLs should be applied at end-of-pipe, unless an attenuation study suggests that an attenuation factor should be applied.

The most important issue is how to protect groundwater from emergent chemical contamination for constituents that currently do not have MCLs, such as perchlorate, 1,4-dioxane, NDMA. The most current and relevant science, such as cancer and non-cancer endpoints, should be used to establish limitations. For these and other chemicals, monitoring should be required at a minimum and procedures (triggers) that would lead to effluent limits should be defined. The Regional Board's ability to interpret narrative water quality objectives (under independent water quality standards regulations in Basin Plans) to protect against unregulated chemicals is critical to prevent degradation.

Impoundments

Issue 6: What requirements should be placed on impoundments to prevent them from degrading underlying groundwater?

Response: One can minimize the effects of impoundments if an engineered liner has been constructed and recharge is effectively prevented. The integrity of the liner can be demonstrated by the construction of groundwater monitoring wells.

Anti-degradation Policy

Issue 7: Should the State Water Board modify Resolution 68-16 (Anti-degradation Policy) to encourage water recycling or to clarify the language? Is so, what modifications should be made to the policy?

Response: 68-16 should not be revised solely for the purpose of encouraging water recycling. The basic tenets of antidegradation policies are to maintain the highest qualities possible and requiring demonstrations and conscious decision-making to allow limited degradation if deemed absolutely necessary. The policy could be revised to better reflect these principles. The need for any revisions should be carefully reviewed and discussed.

The terms "maximum benefit to the people of the state" and "best practical treatment or control" for water recycling projects could be defined with more clarity in either a policy or guidance context. At this point, we would recommend not absolutely defining this in policy as "best practical treatment or control" evolves as technology improves. We feel that it is premature to fully evaluate this question pending further analysis and discussion.

Issue 8: Should the Water Recycling Policy define what is "maximum benefit to the people of the state" and/or what is "best practical treatment or control" for water recycling projects?

Response: Please see our Response to Issue 7.

Agency Coordination

Issue 9: The Department of Health Substances is developing regulations for groundwater recharge reuse projects. Should the State Water Board not address some issues related to groundwater recharge reuse projects, since they may be addressed by the Department of Health Services regulations?

Response: The Department of Health Services is charged with the protection of public health from direct contact with recycled water. While some of the responsibilities of the Regional Boards and Department of Health Services overlap, the Regional Board is charged with the protection of all beneficial uses for now and the future. Therefore certain issues not considered a health issue priority by the Department of Health Services, such as salt accumulation, would not get addressed by the DHS regulations.

Aquifer Storage and Recovery Projects

Issue 10: Should the scope of the policy also cover aquifer storage and recovery projects?

Response: No. Aquifer Storage Regulators should not be included under the water recycling policy, unless recycled water is used for aquifer recharge. In this case, the water recycling recharge regulations for groundwater recharge by the State Department of Health Services should apply, in addition to individual Regional Boards Basin Plan objectives.

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Again, we appreciate the opportunity to provide general responses to these questions. As noted earlier, we plan on vetting many of these issues (and others) with stakeholders in our region and may develop different or additional options over the next year.

We look forward to actively participating in the development of this critically important policy issue. Should you have any questions, please contact Deborah Smith, Chief Deputy Executive Officer at (213) 576-6609 or Blythe Ponek-Bacharowski, Chief, Municipal Permitting Unit at (213) 576-6720.

Sincerely,



Chief Deputy Executive Officer

Jonathan S. Bishop
Executive Officer

for

Cc: Gordon Innes, SWRCB

